

WHAT IS CLAIMED IS:

1. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a paraffin layer by applying a paraffin coating to a base that exhibits an affinity to the fluid; and

removing said paraffin layer by supplying energy to a region to be an affinity region having an affinity to said fluid such that said affinity region and a non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed.

2. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a paraffin layer by applying a paraffin coating to a base that exhibits no affinity to the fluid;

removing said paraffin layer by supplying energy to a region to be a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid and said non-affinity region are formed in a pattern formation region in which said patterned thin film is formed; and

removing said paraffin layer by supplying energy to a region to be a pattern non-formation region in which a patterned thin film is not formed.

3. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a metal layer on a base that exhibits an affinity to the fluid;

removing said metal layer by supplying energy to a region to be an affinity region having an affinity to said fluid such that said affinity region and a non-affinity region

not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed; and

immersing said base from which the metal has been selectively removed in a mixed liquid containing a sulfur compound.

4. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a metal layer on a base that exhibits no affinity to the fluid;

removing said metal layer by supplying energy to the region other than the pattern formation region in which said patterned thin film is formed;

removing said metal layer by supplying energy to a region to be a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid and said non-affinity region are formed in said pattern formation region; and

immersing said base from which the metal has been selectively removed in a mixed liquid containing a sulfur compound.

5. The method for manufacturing a substrate defined in claim 3, wherein said sulfur compound has the opposite property from that of the surface of said base in regard to affinity to said fluid.

6. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

masking a base that exhibits no affinity to the fluid with a mesh mask that covers the region other than a pattern formation region in which said patterned thin film is formed and also covers a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid and said non-affinity region are formed in said pattern formation region;

plasma-working said base covered with the mesh mask; and

performing a modification treatment on the base surface that has been excited by said plasma working.

7. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

masking a base that exhibits an affinity to the fluid with a mesh mask that covers an affinity region having an affinity to said fluid such that said affinity region and a non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed;

plasma-working said base covered with the mesh mask; and

performing a modification treatment on the base surface that has been excited by said plasma working.

8. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

masking a base that exhibits no affinity to the fluid with a mesh mask that covers the region other than a pattern formation region in which said patterned thin film is formed and also covers a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid is formed within said non-affinity region in said pattern formation region; and

performing a modification treatment on said mesh-masked base by irradiating it with ultraviolet rays.

9. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

masking a base that exhibits an affinity to the fluid with a mesh mask that covers an affinity region having an affinity to said fluid such that said affinity region and a

non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed; and

performing a modification treatment on said mesh-masked base by irradiating it with ultraviolet rays.

10. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a thin film from a thin film material having an affinity to said fluid on a base furnished with a surface not having an affinity to the fluid;

providing a photoresist such that an affinity region having an affinity to said fluid and a non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed; and

etching the base on which said photoresist has been formed and etching the region other than the region where said photoresist is provided.

11. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

forming a thin film from a thin film material not having an affinity to said fluid on a base furnished with a surface having an affinity to the fluid;

providing a photoresist that covers the region other than a pattern formation region for forming said patterned thin film and also covers a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid and said non-affinity region are formed in said pattern formation region; and

etching the base on which said photoresist has been formed and etching the region other than the region where said photoresist is provided.

12. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

applying a charge to the entire surface of a base that exhibits no affinity to the fluid;

dissipating the charge by applying energy to the region other than a pattern formation region in which said patterned thin film is formed;

dissipating the charge of a non-affinity region not having an affinity to said fluid such that an affinity region having an affinity to said fluid and said non-affinity region are formed in said pattern formation region; and

bonding a specific substance to the affinity region where the charge was not dissipated.

13. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the steps of:

applying a charge to the entire surface of a base that exhibits an affinity to the fluid;

dissipating the charge of an affinity region having an affinity to said fluid such that said affinity region and a non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed; and

bonding a substance to the affinity region where the charge was not dissipated.

14. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the step of:

printing an affinity film in an affinity region having an affinity to said fluid such that said affinity region and a non-affinity region not having an affinity to said fluid are formed in a pattern formation region in which said patterned thin film is formed on a base that exhibits no affinity to the fluid.

15. A method for manufacturing a substrate for forming a patterned thin film by applying a fluid, comprising the step of:

printing a non-affinity film in the region other than a pattern formation region in which said patterned thin film is formed and in a disposed affinity region having an affinity to said fluid such that said affinity region and a non-affinity region not having an affinity to said fluid are formed in said pattern formation region on a base that exhibits an affinity to the fluid.

16. A method of manufacturing a substrate, comprising:

forming a pattern formation region including a plurality of affinity regions, each having an affinity to a fluid and at least one non-affinity region not having an affinity to said fluid on a base;

wherein said affinity region and said non-affinity region are formed such that the fluid is applied continuously to said affinity region and said non-affinity region between at least two of said affinity regions.

17. A method of pattern formation whereby a pattern is formed on a substrate, comprising the steps of:

driving an ink-jet type recording head which is able to discharge liquid droplets of said fluid in accordance with a optional pattern, and

forming a pattern with said fluid on said substrate by discharging liquid droplets of said fluid from the nozzles of said ink-jet recording head which is moving along said pattern,

wherein the substrate comprises at least one pattern formation region having a shape corresponding to the patterned film, and said pattern formation region being constituted by an affinity region having an affinity to the fluid and a non-affinity region not having an affinity to the fluid.

18. A method of pattern formation as claimed in claim 17, wherein the formation of said pattern is achieved by discharging liquid droplets of said fluid from said nozzles by:

supplying said fluid to the cavities which are established in said ink-jet type recording head and which are constructed in such a way that they can be filled with said fluid, and

applying a voltage corresponding to the optional pattern to piezoelectric elements which are assembled in such a way that they produce a change in the volume of said cavities.